REMARKS

Applicant intends this response to be a complete response to the Examiner's **24 April 2009** Non-Final Office Action. Applicant has labeled the paragraphs in his response to correspond to the paragraph labeling in the Office Action for the convenience of the Examiner.

Preliminary Statement

Applicant points out that the cross-laminate of the present claims differ from any of the laminates disclosed in the cited prior art in a number of characteristics at least two of which are: (1) the coextruded nature of the laminate films, (2) the bonding structure that results from lamination and (3) the strands are thin co-extruded lines.

1. All features of the laminates of the present invention are formed during extrusion. There are no separate structures that are coated and embedded within an extruded polymeric material. The strands are thin filaments that are extruded onto the bonding layer during the extrusion process. Thus, as the film is being formed, all film components are extruded in one process. There are no structures that exited prior to the extrusion process. Thus, there are no separate components that include reinforcing fibers that become embedded or encased in a polymeric material.

2. The resulting laminate includes a bonding system that has three different bonding types, *i.e.*, when laminated, three distinctly different bonds are formed between the two films. One bond type is formed between a strand on one film and a strand on the other film (point bonds, strand to strands bonds at crossing points of strands or strand intersecting points). A second bond type is formed between a strand on one film and a bonding layer of the other film (line segment bonds, strand to bonding layer bonds). A third bond typ is formed between a bonding layer of one film and a bonding layer of the other film (areas bonds, bonding layer to bonding layer bonds, where the bonding layers are devoid of strands). While the bonding strengths can be adjusted to some extent, the bond strength of the first type of bond are always greater than the bond strength of the third type of bond due to the choice of the polymers making up the strands and making up the bonding layer. The bond strength of the second type of bonds will depend on the polymer composition of the strand and the bonding layer.

3. The strands are thin co-extruded lines as shown in Figures 1 and 2, where the lines can be seen to be have a width much less than 1 mm.

Moreover, as more and more references are relied upon by the Examiner to make out a case

for obviousness, a countervailing argument can be made that if too many references must be combined to even build an argument case for obvious, the invention must not be very obvious and would certainly not be obvious to one of ordinary skill in the art.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

The Examiner states as follows:

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/9/2009 has been entered.

Applicant acknowledges the statements of the Examiner.

Claims

The Examiner states as follows:

2. Claims 123-148 are pending.

Applicant acknowledges that claims 123-148 are pending.

WITHDRAWN OBJECTIONS/REJECTIONS

The Examiner states as follows:

3. All rejections of record in the Office Action mailed 11/7/2008 have been withdrawn due to Applicant's amendments in the Paper filed 3/9/2009.

Applicant acknowledges the withdrawal of the these rejections.

NEW REJECTIONS

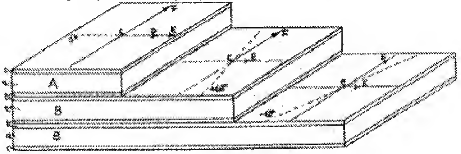
Claim Rejections - 35 USC § 103

4. **Claims 123-127, 129-130, 136-137, 143-144 and 147-148** stand rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (WO01/96102) in view of Hendrickson (US 4,087,577) and Wynne et al. (US 5,328,743).

The Examiner contends as follows:

It is firstly noted that the language regarding the strand limitations in independent claim 123 is broad with minimal specificity distinguishing the strands as reinforcing strands, non reinforcing strands, ribs, striations, streaks, etc. or whether the strands are flat, round, etc.. Analysis and evidence is lacking regarding any structural differences for a laminate with strands that are coextruded as opposed to strands that are embedded in a polymeric structure.

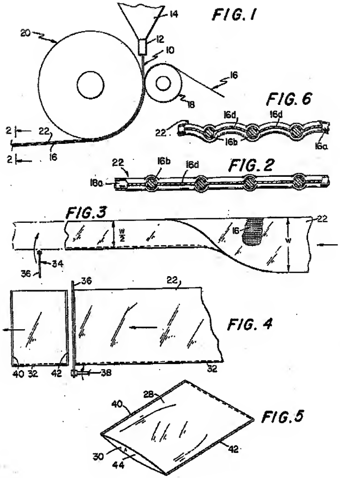
Rasmussen ('102) teaches a cross-laminate comprising a first coextruded film having a main direction of uniaxial unbalanced biaxial molecular orientation *(See p. 5, ll. 26-31 and FIG-2, cross laminate with multiple layers and sublayers.)*



The films A and B comprise heat seal layers #c, main layers #a and lamination layers #b, with individual compositions bonded to each other in the laminate as illustrated in FIG-2 as well as bonding of the layers when the layers are wrapped such as in a gusseted tube. Since the layers have different compositions the bonding and adhesive strengths are different. Since some portions of the laminate are bonded at the seam there are regions of some of the laminate substrates that have additional bonding that is not present in other regions *(See p. 2, ll. 42-58, p. 11, l. 25 to p. 12, l. 14, p. 5, ll. 26-31, p. 6, ll. 1-9 and FIG-2. The Examiner interprets continuous to mean anything such as color, width, length, thickness, surface property, etc.. The claims do not set forth which side of film A is facing any particular side of film B, whether the main layers are the outermost or innermost surfaces of the laminate or just one is on an outermost surface. The claims do not require the strands from film A to be in "direct" contact with the strands in film B. Thus, the strands can be in indirect contact or embedded. The claims state the strands intersect each other, however, the strands are not interpreted as intersecting each other in a way that one would ordinary understand intersect to mean. The strands are interpreted as being in either the same or different planes from one another and not required to be in direct contact. Since the separation of the strands includes 0 cm, the strands do not need to be separated at all and a single polymeric layer of any dimension. Since, the strands do not need to be separated then there also does not have to be regions where there are not strands and thus no regions above and below the strands that are directly bonded to each other. There is no apparent difference in the structure between strands that are coextruded and those that are not.),* however, fails to expressly disclose wherein the various layers are continuous, having a plurality of strands in films A and B, the bonding being different between the various layers and regions within the layer, a thickness increase of the films A and B at their respective strand locations being at most 20%/(10%) of a film thickness of the films A and B in adjacent regions of the films A and B devoid of their respective strands.

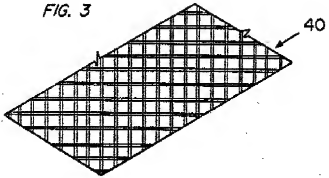
However, Rasmussen ('102) teaches where the structure is made into bags, wherein the layers are continuous when wrapped such as with a gusseted tube and as the layers progress to the opening(s) in the gusseted tube until the layers terminate. Each layer clearly has a pattern whether it is substantially the same, including wave-shaped web with stabilized waves (See *p. 8, ll.* 28-32.), within the layer or upon the bonded and non-bonded areas with various bonding strengths and the additional layers and or/markings will clearly be applied at various regions in a continuous manner to provide for the desired messages (See *p. 6, ll.* 1-9.). Pigments are added to the various compositions providing for further patterns *(See p. 11, l. 25 to p. 12, l. 14.)* for the purpose of providing a pleasing, strong bag for containing the packaged goods *(See p. 6, ll. 1-9.)*.

Hendrickson ('577) teaches a polymeric bag reinforced with a two sets of crossing strands of a first polyolefin polymer that may be woven or nonwoven into a grid while the polymeric sheets are made from a different polyolefin polymer, thus, providing for different bonding properties between the sets of strands, top and bottom sheets and between the strands and the sheets *(See col. 3, l. 32 to col. 6, l. 35 and FIGs 2-6, with a bag as illustrated in FIG-5 and strands #16 illustrated in FIGs 2-3 and 6. The strands are clearly capable of being coextruded along with the film without there being any apparent structural difference between coextruded and non coextruded strands.)*



and the thickness of the film and at the location of the strands being the same as at the location between the strands (See *col.* 4, *l.* 57 *to col.* 5, *l.* 1.) for the purpose of providing bags with improved strength and capable of accommodating larger payloads (See *col. 6, ll. 36-61.)*.

Wynne ('743) teaches a polymeric material (See *FIG-3, #40 and col.* 5, *ll. 5-59.)*



with multiple polyolefin polymeric layers being reinforced with a grid of crossing strands #54A and #548 and #30-32 made of different materials *(See FIGs* 4 *and 2.)*

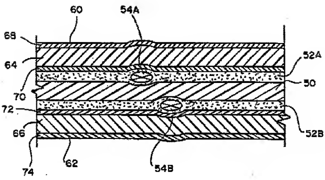
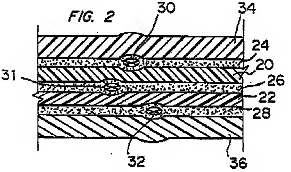


FIG. 4

FIG. 2



usable as a packaging material that can be seamed into bags *(See col.* 5, *II.* 16-59.) for the purpose of providing a strong, reinforced protective material *(See col.* 5, *II. 44-59.).*

Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to provide the above structure with a continuous and patterned structure as taught by Hendrickson ('577) and Wynne ('743) and obviously taught by Rasmussen ('102) in Rasmussen (,102) in order to provide a strong material capable protecting and accommodating larger payloads.

The phrases "a separation between adjacent film A first strands is no more than 8 cm" in claim 123, lines 11-12 and 23-25 are not limiting since they include values of "0 cm" or no separation.

The phrases "adapted to ***" in claim 124, line 3 and claim 143, line 2 do not limit the claims' scope since said language does not limit the claim to a particular structure *(See MPEP 2111.04).*

For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising". See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355 ("PPG could have defined the scope of the phrase consisting essentially of for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention."). MPEP 2111.03 Also, If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). The "consists/ (consisting) essentially of' language is used in claim 141, line 2 and claim 142, line 6.

First, Rasmussen ('102) does not disclose, teach or suggest any type or reinforcing structure. Second, Rasmussen ('102) does not disclose, teach or suggest three bonding types. Third, Rasmussen ('102) does not disclose, teach or suggest strands comprising co-extruded thin lines.

Applicants have amend claim 123 to add characteristics of the strands, which are co-extruded, thin lines of a polymer with improved bonding properties relative to the bonding layer so that strand-to-strand bonding is stronger then bonding layer-to-bonding layer bonding, with bonding layer-to-strand bonding generally being between these two values.

Thus, Rasmussen ('102) does not disclose, teach or even suggest films having three different structures, a main layer, a bonding layer and a strands comprising co-extruded thin lines, which are much less than 1 mm wide as can be seen in the Figures, especially Figure 1. Rasmussen ('102) also does not disclose, teach or even suggest co-extruding strands (thin lines) on the surface of the bonding layer that constitute no more than 30% of the thickness of its respective film as the films thickest part. Thus, if the film if 10 mm thick at its thickest point, the strands will be no more than 3 mm thick.

The Examiner then combines Rasmussen ('102) with Hendrickson ('577) and Wynne ('743). However, both of these references disclose separate reinforcing structures that are not co-extruded during film formation, but are completely separate structures that are embedded into the film or are pre-embedded into an adhesive to form a layer that is then laminated to other layer to form a film.

The Hendrickson ('577) reinforcing scrim is completely a separate structure that is embedded in a polymer as it is passed through the nip between rollers:

> The foregoing objects are attained in accordance with the invention which in its broader aspects provide a process for preparing a scrim or web reinforced film comprising contacting molten plastic in a state of high fluidity with an unsupported scrim, said plastic flowing into and around the scrim network, cooling the plastic to solidify same to produce a scrim or web at least substantially completely enclosed and surrounded by said plastic.

Hendrickson ('577) at Col. 2, ll. 39-47.

The Hendrickson ('577) reinforcing scrim, in one embodiment, comprises polypropylene having a melt temperature of 160°C, while the extrudate comprises polyethylene having a melt temperature of 120°C to 130°C. This temperature difference permits the polypropylene scrim to be completely enclosed and surrounded by polyethylene.

> In accordance with a particularly preferred embodiment in terms of cost and performance, the thermoplastic material comprising the molten extrudate is polyethylene while the scrim material comprise polypropylene, preferably of the oriented type as is well known in the art. As explained, the process if preferably carried out utilizing an extruder for producing the molten form of the film forming plastic material. However, it will be understood that other methods may be effectively employed for providing the requisite form of the molten plastic e.g., in the form of a molten extrudate. Moreover, other methods for forming the solidified, coated scrim assembly can be used such as an air knife coating technique utilizing cold air to effect cooling and solidification of the molten plastic. In any event, the essential criteria is the fluidity of the molten plastic at the time it contacts the scrim network. As explained previously, the extruding parameters should be chosen to effect at least

> substantial solidification of the molten plastic by the time it emerges from the bite of chilling roll 20 and nip roll 18. Thus, as the scrim speed and/or molten plastic temperature is increased, the temperature of the chilling roll should correspondingly be decreased consistent with the foregoing requirements.

Hendrickson ('577) at Col. 6, ll. 12-35.

The strands of the present invention have a melt temperature between 50°C and 100°C, far below the Hendrickson ('577) reinforcing scrim melt temperature.

Moreover, the Hendrickson ('577) reinforcing scrim is a criss-crossed fiber network, while the crossing network of the present invention is only formed during lamination, because the films of the present invention are formed with only parallel strands comprising thin parallel lines disposed on the surface of a bonding layer of a film.

The Wynne ('743) reinforcing grid is a nylon, polyester or blend thereof:

> The reinforcing grid is preferably 200 to 800 denier yarn in a crisscross pattern. The grid is filamentous made of single strand or multiple filament yarn preferably of nylon, polyester or blends. The reinforcing grid is in a layer of water-based or solvent-based adhesive or other pressure sensitive adhesives. The dry thickness of the adhesive is between 0.25 and 1 mil with a preferred dry thickness of about 0.75 mil. The adhesive should be used in an effective amount to prevent delamination. However, the amount of adhesive should not be an excessive amount that retards the movement of the grid under stress such as a puncture. The grid should sag to prevent further tearing. The reinforcing grid in the adhesive layer is in between the layers of shrink film and the outer layer of polyolefin film and inner layers of polyolefin, if any, to provide the tear, puncture and rip resistance and adhesion to make a strong multilayer film. The reinforcing grid is preferably spaced about 0.5 inches apart and can be any spacing desired, but is generally from 1/8 inch to a two inch grid.

Wynne ('743) at Col. 2, ll. 28-47. These polymers have very high melt points far above the 50°C to 100°C of the strand polymer of this invention.

Thus, the combination of Rasmussen ('102), Hendrickson ('577) and Wynne ('743) would give rise to a laminate structure including reinforcing structures that were pre-formed and separately existing structures that are surrounded and encased in a polymers during an extrusion process. However, the combination does not disclose, teach or even suggest a laminate, where the reinforcing structures is formed during film lamination due to bonding between parallel strands co-extruded on bonding layers of the films prior to lamination at crossing points of the strands on one film with the strands on a second film. Because the combination does not disclose, teach or even suggest laminates having three distinct bonding types: strand-to-strand bonding, bonding layer-to-bonding layer bonding, strand-to-bonding layer bonding, does not disclose, teach or even suggest laminates are not formed using wholly separate reinforcing structures, and does not disclose, teach or even suggest the co-extrusion of strands on the top of bonding layers that ultimately give rise to two of the three bonding types, the combination cannot render claims 123-127, 129-130, 136-137, 143-144

and 147-148 obvious. Applicant, therefore, respectfully requests withdrawal of this rejection.

5. **Claim 128, 131-135 and 141** stand rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (WO 01/96102) in view of Hendrickson (US 4,087,577), Wynne et al. (US 5,328,743) and Lappala (US 2,851,389).

> Regarding claim 128, Rasmussen (102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, however, fail to expressly disclose where a collective area of the film A first strands and film B first strands comprises no more than 60% of a surface area of their respective film sides.
>
> However, Lappala ('389) teaches a strand reinforced layered structure where any suitable diameter strand may be used *(See col.* 2, *l.* 45, *any suitable diameter can be used.),* which clearly changes the above area ratio. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to select a strand with a diameter that provides the above area ratio as taught by Lappula ('389) for the purpose of providing a laminate that is light and strong *(See col.* 1, *ll. 25-28.*).
>
> Regarding claims 131-133, Rasmussen (102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, however, fail to expressly disclose wherein a volume of the film A strands and the film B strands is not greater than 15%/(10%)/(5%) of a volume of their respective films.
>
> However, Lappala ('389) teaches that any suitable diameter strand may be used *(See col.* 2, *l.* 45, *any suitable diameter can be used.),* which clearly changes the volume. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to select a strand with a diameter that provides the above volume as taught by Lappala ('389) for the purpose of providing a laminate that is light and strong (See *col.* 1, *ll. 25-28.).*
>
> Regarding claims 134-135, Rasmussen (102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, however, fail to expressly disclose the separation between first strands on films A and B is between 2 mm and 40 mm/(at the highest 20 mm) measured from the middle of one strand to a middle of an adjacent strand.
>
> However, Lappala ('389) teaches that any suitable pattern may be used *(See col. 2, l.* 49-51, *any suitable pattern.)* for the purpose of providing a laminate that is light and strong (See *col.* 1, *ll. 25-28.).*
>
> Therefore, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to select a suitable pattern that provides the above separation as taught by Lappala ('389) in Rasmussen (102) in order to provide a laminate that is light and strong.
>
> Regarding claim 141, Rasmussen (102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, however, fail to expressly disclose wherein the main layer of each of the two films A and B consists essentially of polyethylene or polypropylene.
>
> However, Lappala ('389) teaches wherein the main layer of each of the two films A and B is polyethylene *(See col.* 2, *l.* 31 *and ll.* 66-67.) for the purpose of providing a laminate that is light and strong *(See col.* 1, *ll. 25-28.).*
>
> Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to provide polyethylene layers as taught by Lappala ('389) in Rasmussen (102) in order to provide a laminate that is light and strong.

Applicant reasserts its arguments relating to the Rasmussen ('102), Hendrickson ('577) and Wynne ('743). The addition of Lappala ('389) only adds another type of preformed fibrous network that becomes encased in a polymer. In fact, the Lappala ('389) fibers comprise glass, rock-wool, asbestos, nylon, polyester, polyacrylontrile, and cyanoethylated cotton. Lappala ('389) at Col. 2, ll.

35-44.

Thus, the combination of Rasmussen ('102), Hendrickson ('577), Wynne ('743) and Lappala ('389) would give rise to a laminate structure including reinforcing structures that were pre-formed and separately existing structures that are surrounded and encased in a polymers during an extrusion process. However, the combination does not disclose, teach or even suggest a laminate, where the reinforcing structures is formed during film lamination due to bonding between strands co-extruded on bonding layers of the films prior to lamination at crossing points of the strands on one film with the strands on a second film. Because the combination does not disclose, teach or even suggest laminates having three distinct bonding types: strand-to-strand bonding, bonding layer-to-bonding layer bonding, strand-to-bonding layer bonding, does not disclose, teach or even suggest laminates are not formed using wholly separate reinforcing structures, and does not disclose, teach or even suggest the co-extrusion of strands on the top of bonding layers that ultimately give rise to two of the three bonding types, the combination cannot render claims 128, 131-135 and 141 obvious. Applicant, therefore, respectfully requests withdrawal of this rejection.

6. **Claim 138-140** stand rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (WO 01/96102) in view of Hendrickson (US 4,087,577), Wynne et al. (US 5,328,743) and Cederblad et al. (US 6,204,207).

> Rasmussen (102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, however, fail to expressly disclose wherein an average melting point of the third polymer material and average melting point of the sixth polymer materials are at least about 1 0°C/(15°C) /(20°C) lower than an average melting point of the first polymer material and an average melting point of the fourth polymer material.
>
> However, Cederblad ('207) teaches a strand reinforced polymer structure where the average melting point of the polymer material of the layers of the films differ *(See col.* 12, *II.* 38-53.) for the purpose of providing firm and light bonds *(See col.* 6, *II. 60*-67.).
>
> Therefore, it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to provide strands with melting pOints below that of the films as taught by Cederblad (,207) in Rasmussen (102) in order to produce a laminate with firm and light bonds.

Applicant reasserts its arguments relating to the Rasmussen ('102), Hendrickson ('577) and Wynne ('743). The addition of Cederblad ('207) only adds extruding a network on the surface of a substrate. The substrate and the reinforcing structures are not co-extruded. While Hendrickson ('577) and Wynne ('743) added preformed reinforcing scrims or grids that are then embedded in a polymer, Cederblad ('207) teaches the exact opposite. In Cederblad ('207), the substrate is pre-formed and the reinforcing structure is extruded. The combination of these teachings would give

rise to a laminate where some of the reinforcing structures were preformed and encased in a polymers, while other are extruded then laminated onto preformed substrates.

Thus, the combination of Rasmussen ('102), Hendrickson ('577), Wynne ('743) and Cederblad ('207) would give rise to a laminate structure including reinforcing structures that were pre-formed and separately existing structures that are surrounded and encased in a polymers during an extrusion process. However, the combination does not disclose, teach or even suggest a laminate, where the reinforcing structures is formed during film lamination due to bonding between strands co-extruded on bonding layers of the films prior to lamination at crossing points of the strands on one film with the strands on a second film. Because the combination does not disclose, teach or even suggest laminates having three distinct bonding types: strand-to-strand bonding, bonding layer-to-bonding layer bonding, strand-to-bonding layer bonding, does not disclose, teach or even suggest laminates are not formed using wholly separate reinforcing structures, and does not disclose, teach or even suggest the co-extrusion of strands on the top of bonding layers that ultimately give rise to two of the three bonding types, the combination cannot render claims 138-140 obvious. Applicant, therefore, respectfully requests withdrawal of this rejection.

7. **Claim 142** stands rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (WO 01/96102) in view of Hendrickson (US 4,087,577), Wynne et al. (US 5,328,743), Rasmussen (US 4,039,364), Velazquez (US 5,614,297) and Cederblad et al. (US 6,204,207).

> Rasmussen (,102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, and Rasmussen ('364) teaches a laminate wherein the main layers are made from HDPE, LLDPE or a blend of the two *(See col.* 13, *II.* 3-7.) and the strands in the first surface layers of the films is a polymer made from a copolymer of ethylene *(See col.* 13, *II. 11-30.),* however, fail to expressly disclose wherein the bonding layers comprise LLDPE in admixture with 5 - 25% of a copolymer of ethylene having a melting pOint or a melting range within the temperature range of 50 - 80°C, the strands comprise a polymer with a copolymer of ethylene having a melting point or a melting range within the temperature range of 50 - 100°C or a blend of such copolymer and LLDPE containing at least 25% of the copolymer.
>
> However, Velazquez ('297) teaches a polyolefin stretch film having bonding layers comprising LLDPE in admixture with 5 - 25% of a copolymer of ethylene having a melting point or a melting range within the temperature range of 50 - 80°C *(See col. 8, II.* 26-47 *and col.* 3, *I.* 46.) for the purpose or providing a film that can be laminated with one or more films *(See col.* 6, *II. 13-17.).*
>
> Furthermore, Cederblad ('207) teaches wherein the layers comprising a copolymer of ethylene having a melting point or a melting range within the temperature range of 50 - 100°C *(See col.* 12, *I.* 42 *wherein the melting point is 67°C /152 oF.)* for the purpose of forming firm bonds *(See col.* 6, *I. 63.).*
>
> Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a laminate with a surface layer of LLDPE and ethylene with the above melting point range and the above strands as taught by Velazquez ('297) and Cederblad (,207) in Rasmussen ('102) in order to provide a bondable laminate as described above.

Applicant reasserts its arguments relating to the Rasmussen ('102), Hendrickson ('577) and Wynne ('743). The addition of Rasmussen ('364), Velazquez ('297) and Cederblad ('207) concerning polymer material selection cannot and does not cure the deficiencies in the combined teaching of Rasmussen ('102), Hendrickson ('577) and Wynne ('743), the primary references.

Thus, the combination of Rasmussen ('102), Hendrickson ('577), Wynne ('743) Rasmussen ('364), Velazquez ('297) and Cederblad ('207) would give rise to a laminate structure including reinforcing structures that were pre-formed and separately existing structures that are surrounded and encased in a polymers during an extrusion process. However, the combination does not disclose, teach or even suggest a laminate, where the reinforcing structures is formed during film lamination due to bonding between strands co-extruded on bonding layers of the films prior to lamination at crossing points of the strands on one film with the strands on a second film. Because the combination does not disclose, teach or even suggest laminates having three distinct bonding types: strand-to-strand bonding, bonding layer-to-bonding layer bonding, strand-to-bonding layer bonding, does not disclose, teach or even suggest laminates are not formed using wholly separate reinforcing structures, and does not disclose, teach or even suggest the co-extrusion of strands on the top of bonding layers that ultimately give rise to two of the three bonding types, the combination cannot render claim 142 obvious. Applicant, therefore, respectfully requests withdrawal of this rejection.

8. **Claim 145** stands rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (WO 01/96102) in view of Hendrickson (US 4,087,577), Wynne et al. (US 5,328,743) and Johnston (US 3,340,128).

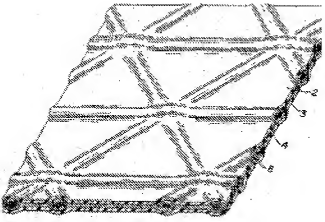
> Rasmussen (102), Hendrickson ('577) and Wynne ('743) teach the laminate discussed above, however, fail to expressly disclose wherein the polymer material of the strands of at least one of the films A and B includes colored material that makes the colored strands visible through at least one side of the cross-laminate.
>
> However, Johnston ('128) teaches a strand reinforced structure where the polymer material of the strands of at least one of the arrays comprises coloration material in sufficient amount to render the at least one colored layer visible through at least one side of the cross-laminate *(See col.* 24, *l.* 58.) for the purpose of providing a decorative motif *(See col.* 24, *ll. 59-60.).*
>
> Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention was made to provide strands with coloration as taught by Johnston ('128) in Rasmussen (102) in order to provide a product having a decorative motif.

Applicant reasserts its arguments relating to the Rasmussen ('102), Hendrickson ('577) and Wynne ('743). The addition of Johnston ('128) only adds another process for adding preformed reinforcing fabric fibers are pre-woven or un-woven prior to be encased in a polymer in a nip.

Thus, the combination of Rasmussen ('102), Hendrickson ('577), Wynne ('743) and Johnston ('128) would give rise to a laminate structure including reinforcing structures that were pre-formed and separately existing structures that are surrounded and encased in a polymers during an extrusion process. However, the combination does not disclose, teach or even suggest a laminate, where the reinforcing structures is formed during film lamination due to bonding between strands co-extruded on bonding layers of the films prior to lamination at crossing points of the strands on one film with the strands on a second film. Because the combination does not disclose, teach or even suggest laminates having three distinct bonding types: strand-to-strand bonding, bonding layer-to-bonding layer bonding, strand-to-bonding layer bonding, does not disclose, teach or even suggest laminates are not formed using wholly separate reinforcing structures, and does not disclose, teach or even suggest the co-extrusion of strands on the top of bonding layers that ultimately give rise to two of the three bonding types, the combination cannot render claim 145 obvious. Applicant, therefore, respectfully requests withdrawal of this rejection.

9. **Claim 146** stands rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (WO 01/96102) in view of Hendrickson (US 4,087,577), Wynne et al. (US 5,328,743), Johnston (US 3,340,128) and Lappala (US 2,851,389).

> Rasmussen (102), Hendrickson (,577), Wynne ('743) and Johnston ('128) teach the laminate discussed above, however, fail to expressly disclose wherein the crosslaminate has a thickness at its thickest of about 0.3 mm, and: wherein an exterior surface of the film A is corrugated to form a visible pattern of striations extending in one direction, where a spacing of the striations being at most about 3 mm: the main layer and the bonding layer of the film A are substantially transparent to enable the colored strands to be visible when the laminate is observed from one of the exterior surfaces of the cross-laminate, and a depth of the corrugations is sufficient to impart a threedimensional effect to the cross- laminate such that the strands appear to be spaced internally from the exterior surface of the film A a distance substantially greater than an actual maximum thickness of the film A.
>
> However, Lappala ('389) teaches a strand reinforced layered structure where the laminate thickness at its thickest is about 0.3 mm *(See col.* 3, *II.* 34-35 *and col.* 2, *I. 45 wherein the films are less than 0.015 in (0.381 mm).)* , the main layer and the bonding layer of the film A are substantially transparent to enable the colored strands to be visible when the laminate is observed from one of the exterior surfaces of the crosslaminate *(See FIG-3,* #2.), where the spacing of the striations being at most about 3 mm *(See FIG-3, corrugations created by strands.)* the main layer and the bonding layer of the film A are substantially transparent to enable the colored strands to be visible when the laminate is observed from one of the exterior surfaces of the cross-laminate, and the depth of the corrugations being sufficient to impart a three-dimensional effect to the cross-laminate such that the strands appear to be spaced internally from the exterior surface of the film A a distance substantially greater than an actual maximum thickness of the film A *(See col.* 2, *I.* 7.), for the purpose of providing a laminate that is light and strong *(See col. 1,1/.* 25-28.).



> Therefore, it would have been obvious to a person of ordinary skill in the art the time of Applicant's invention to provide such a spacing and configuration as taught by Lappala ('389) in Rasmussen (102) in order to provide a light and strong laminate.

Applicant reasserts its arguments relating to the Rasmussen ('102), Hendrickson ('577) and Wynne ('743). The addition of Johnston ('128) only adds another process for adding preformed reinforcing fabric fibers are pre-woven or un-woven prior to be encased in a polymer in a nip, and Lappala ('389) only adds another type of preformed fibrous network that becomes encased in a polymer. In fact, the Lappala ('389) fibers comprise glass, rock-wool, asbestos, nylon, polyester, polyacrylontrile, and cyanoethylated cotton. Lappala ('389) at Col. 2, ll. 35-44.

Thus, the combination of Rasmussen ('102), Hendrickson ('577), Wynne ('743) and Cederblad ('207) would give rise to a laminate structure including reinforcing structures that were pre-formed and separately existing structures that are surrounded and encased in a polymers during an extrusion process. However, the combination does not disclose, teach or even suggest a laminate, where the reinforcing structures is formed during film lamination due to bonding between strands co-extruded on bonding layers of the films prior to lamination at crossing points of the strands on one film with the strands on a second film. Because the combination does not disclose, teach or even suggest laminates having three distinct bonding types: strand-to-strand bonding, bonding layer-to-bonding layer bonding, strand-to-bonding layer bonding, does not disclose, teach or even suggest laminates are not formed using wholly separate reinforcing structures, and does not disclose, teach or even suggest the co-extrusion of strands on the top of bonding layers that ultimately give rise to two of the three bonding types, the combination cannot render claim 146 obvious. Applicant, therefore, respectfully requests withdrawal of this rejection.

ANSWERS TO APPLICANT'S ARGUMENTS

The Examiner contends as follows:

> 10. In response to Applicant's arguments *(See pp.* 11-21 of *Applicant's Paper filed 3/9/2009.)* regarding Rogosch ('764) and Britton (,184), it is noted that said references are no longer cited, thus, said arguments are moot.
>
> 11. In response to Applicant's arguments *(See pp.* 11-21 of *Applicant's Paper filed 3/9/2009.)* regarding the references other than Rogosch ('764) and Britton (,184), it is noted that no further specific arguments are presented other than those made of record. The arguments are substantially directed towards the strand limitations as previously cited by Rogosch ('764) and Britton ('184).

Applicant has amended the application to distinguish the claims over the prior art. The laminates of this invention are formed from films that are extruded to include a main layer, a bonding layer and strands, where the strands are coextruded onto a top of the bonding layer. Then two such films are laminated with the bonding layers including the strands facing each other, then the resulting lamination produces three different types of bonds. Such laminates are unique and patentably distinct from the cited prior art.

Having fully responded to the Examiner's Non-Final Office Action, Applicant respectfully urges that is application be passed onto allowance.

If it would be of assistance in resolving any issues in this application, the Examiner is kindly invited to contact applicant's attorney Robert W. Strozier at 713.977.7000

The Commissioner is authorized to charge or credit Deposit Account 501518 for any additional fees or overpayments.

Respectfully submitted,

Date: **24 July 2009**

/Robert W. Strozier/

Robert W. Strozier, Reg. No. 34,024